

Claims

1. A hand-held power tool, having a housing (12) and a tool (70), which is
5 located on the housing in a manner capable of being driven in rotating and/or
orbiting fashion and which can be operated as intended by means of a flow of
suction air, especially with a vacuum cleaner, characterized a turbine (36) with a
turbine wheel (38) serves as the drive mechanism and is provided with means for
10 calming the inflowing and outflowing air, in particular with an upstream baffle (74)
and/or a downstream baffle, and the air flow approaching the turbine wheel (38) is
carried onward or deflected at an acute angle to the vertical axis (40) of the
turbine wheel (38), in particular an angle of less than 50°.
2. The hand-held power tool as defined by one of the foregoing claims,
15 characterized in that the turbine wheel (38) is provided by a labyrinth seal (51),
which protects the turbine (36) against a pressure loss.
3. The hand-held power tool as defined by one of the foregoing claims,
characterized in that the upstream baffle (74) serves as a bearing seat (76) for a
20 bearing (66) of the axial shaft (72).
4. The hand-held power tool as defined by one of the foregoing claims,
characterized in that it has a downstream baffle (78), which together with
structures (80, 82) of the upstream baffle (74) forms a labyrinth seal (84).
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5. The hand-held power tool as defined by one of the foregoing claims,
characterized in that the upstream baffle (74) is built into the structure of the
housing (12) in such a way that it reinforces the housing.
- 30 6. The hand-held power tool as defined by one of the foregoing claims,
characterized in that the air for driving the turbine wheel (38) is made to pass
radially outward past it and is then extracted by suction radially obliquely inward
from the outer edge of the turbine wheel (38).

7. The hand-held power tool as defined by one of the foregoing claims, characterized in that the housing (12) has a radio switch, with which a counterpart switch that switches the vacuum cleaner on and off is actuatable and thus the hand-held power tool is simultaneously capable of being switched on and off.

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8. The hand-held power tool as defined by one of the foregoing claims, characterized in that it is designed as a surface sander, in particular as an orbital sander.